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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,107	12/27/2001	Ronald C. Gonsiorawski	ASE-08 CIP	2527

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05/16/2002

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EXAMINER
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MUTSCHLER, BRIAN L

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 05/16/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

T.D-3

# Office Action Summary

Application No.

10/035,107

Applicant(s)

GONSIORAWSKI, RONALD C.

Examiner

Brian L. Mutschler

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:
  - a. On page 10 at line 8 and all subsequent occurrences, "Chimasorb 944" should be changed to "Chimassorb 944";
  - b. On page 10 at line 13, "Tinuvin" should be changed to "Tinuvin 328";
  - c. On page 13 at line 11, "Surlyn" should be changed to "Surlyn 1705";
  - d. On page 14 at line 23, the phrase "85% RH/85% °C" appears to be incorrect, especially in regard to "85% °C";
  - e. On page 15 at line 6, "absorption s" should be changed to "absorptions";
  - f. On page 17 at line 3, "Tinuvin 3289" should be changed to "Tinuvin 328";
  - g. On page 17 at line 27, "9/7199" should be changed to "9/7/99"; and
  - h. Surlyn™ 1705-1, which has been referred to as "Surlyn" (p. 13, line 11), "Surlyn 1705" (p. 8, line 14, first occurrence) and "Surlyn 1705-1" (p. 8, line 8, first occurrence), should be consistently referred to using the same name.

Appropriate correction is required.

2. The use of the trademarks Tedlar™, Surlyn™, Pentoate™, Tinuvin™, Chimassorb™ and Solatex II™ has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Objections***

3. Claim 1-22 are objected to because of the following informalities:
  - a. The formatting of the claims is inconsistent, i.e., the spacing and punctuation following the claim numbers, see particularly claims 4-8;
  - b. In claims 2-8 at line 1, "The combination" should be changed to "A photovoltaic module";
  - c. In claim 9 at line 9, "on" should be inserted after "present";
  - d. In claim 9 at line 11, "acid flux acid residue" should be changed to "acid flux residue";
  - e. In claim 11, a period should be inserted at the end of the claim;
  - f. In claims 12, 14 and 15 at line 2, "solar cells" should be changed to "photovoltaic cells" to maintain consistency;
  - g. In claim 21 at line 2, "photooxidation" should be changed to "photo-oxidation"; and
  - h. In claim 22 at line 2, "wave-length" should be changed to "wavelength".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 at line 4, claim 4 at lines 1 and 2, claim 9 at lines 4, 7 and 9, and claim 16 at lines 4, 6, 12, 15, 21, 24 and 26, recite the limitation "said cells" or "cells". There is insufficient antecedent basis for this limitation in the claims. The phrase should be changed to "said photovoltaic cells" or "photovoltaic cells". The same applies to dependent claims 2-8, 10-15 and 17-22.

Claims 2, 5 and 6 recite the limitation "said ionomer" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claims. It is suggested that the phrase be changed to "said zinc ionomer".

Claim 3 recites the limitation "said rear sheet" in line 2. There is insufficient antecedent basis for this limitation in the claim. The phrase should be changed to "said back sheet".

In claim 3 at line 2, the use of the trademark "Tedlar™" renders the claim indefinite.

In claim 5 at line 2, the use of the trademark "Surlyn™" renders the claim indefinite.

In claim 6 at lines 2 and 3, the use of the trademarks "Chimassorb™" and "Tinuvin™" renders the claim indefinite.

The use of trademarks in claims renders the scope of the claims uncertain since the trademark or trade name cannot be used properly to identify any particular material

or product. Trademarks are used to identify the source or origin of a product and are not descriptive of the products themselves. Furthermore, the products identified by trademarks or trade names can change over time and therefore do not serve to specifically identify a product.

Claim 6 is indefinite because it depends from itself.

Claim 6 recites the limitations “the UV absorber” in line 2 and “the UV stabilizer” in line 3. There is insufficient antecedent basis for these limitations in the claim. The phrases should be changed to “a UV absorber” and “a UV stabilizer”, respectively.

In claim 8 at line 2 and in claim 20 at lines 1-2, the phrase “low water solubility” is indefinite because “low” is a relative term and does not clearly distinguish what is meant by “low water solubility”.

Claim 9 recites the limitation “said back” in line 7. There is insufficient antecedent basis for this limitation in the claim. The phrase should be changed to “said back sheet”. The same applies to dependent claims 10 and 11.

In claim 9 at line 10, the phrase “substantially inert” renders the claim indefinite because it is not clear how a material may be *almost not reactive* with another substance. The same applies to dependent claims 10 and 11.

Claims 12 and 13 recite the limitation “said solar cells” in line 2. There is insufficient antecedent basis for this limitation in the claims. The phrase should be changed to “said photovoltaic cells”.

In claim 16 at line 9, the term “stiff” is relative and does not clearly define the structure of the sheet. The same applies to dependent claims 17-22.

In claim 16 at line 24, the phrase "to soften enough to encapsulate" is unclear. It is suggested that the phrase be changed to "to encapsulate". The same applies to dependent claims 17-22.

In claim 17 at line 5, the phrase "tight compressing relation" is indefinite because the term "tight" is relative. It is suggested that the phrase be changed to "compressing relation".

In claims 18 and 21 at line 2, the phrase "high radiation transmission" is indefinite because the term "high" is relative and does not clearly define the extent to which the ionomer must transmit radiation to be considered "high transmission". The same applies to dependent claims 19 and 20.

Since claim 6 incorrectly depends from itself, it was assumed by the Examiner that claim 6 should depend from the preceding independent claim, which is claim 1.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2 and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanoka (U.S. Pat. No. 5,733,382), herein referred to as US '382.

US '382 shows a photovoltaic module comprising a plurality of photovoltaic cells 46 disposed between a transparent front panel 42 and a back sheet 50 and

encapsulated by a light-transmitting zinc ionomer **44** and **48** (col. 5, lines 27-64; fig. 7). The zinc ionomer **44,48** is an ethylene-methacrylic acid copolymer or ethylene-acrylic acid copolymer (col. 7, lines 59-67). The zinc ionomer is resistant to acid chemical attack and has a melting point of about 95°C (physical properties of the material sold under the trade name Surlyn™ 1702). The photovoltaic cells **46** are connected by conductors **47** physically and electrically connected to front and back contacts using solder connections (col. 5, line 42). The front support sheet **42** is made of clear transparent glass (col. 5, line 30). Since ceria-doped glass is more expensive, it is only used when UV absorption is required of the front protecting member, which is not necessary in US '382 due to the use of UV absorbers and stabilizers in the ionomer (col. 10, lines 13-18).

Since US '382 teaches the limitations recited in the instant claims, the reference is deemed to be anticipatory.

***Claim Rejections - 35 USC § 103***

8. Claim 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382) in view of Hanoka et al (U.S. Pat. No. 5,476,553), herein referred to as US '382 and US '553, respectively.

US '382 discloses a photovoltaic module having the limitations recited in claims 1, 2 and 7-11, as explained above in paragraph 7. The apparatus of US '382 differs from the instant invention because US '382 does not disclose the use of a Tedlar™ back sheet, as recited in claim 3, and does not disclose the use of Chimassorb™ 944 or Tinuvin™ 328, as recited in claim 6.



US '553 discloses the use of a Tedlar™ sheet as a backing member for a photovoltaic module of the type claimed in the instant invention (col. 10, line 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of US '382 to use a Tedlar™ back sheet, as taught by US '553, because using a Tedlar™ sheet would provide a significant weight reduction over a module having a glass back sheet.

Regarding claim 6, US '553 discloses the use of UV absorbers and UV stabilizers in ionomers and discloses the ability to use other UV absorbers and UV stabilizers (col. 9, line 63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of US '382 to use other UV absorbers and stabilizers because US '553 teaches that a variety of UV absorbers and stabilizers may be used.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382), herein referred to as US '382, in view of admissions made in the disclosure of the instant invention.

US '382 discloses a photovoltaic module having the limitations recited in claims 1, 2 and 7-11, as explained above in paragraph 7. The apparatus of US '382 differs from the instant invention because US '382 does not disclose the use of acidic flux.

In the disclosure of the instant invention, on page 7 at lines 11-13, it states:

A preferred and efficient practice is to use pre-tinned conductors which also have been coated with a suitable flux composition. The fluxes commonly comprise an inorganic or organic acid or acid salt.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of US '382 to use an acidic flux to solder the conductors onto the photovoltaic cells because it is common practice to use acidic flux when making connections to photovoltaic cells, as disclosed in the disclosure of the instant invention.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382), herein referred to as US '382.

US '382 discloses a photovoltaic module having the limitations recited in claims 1, 2 and 7-11, as explained above in paragraph 7. US '382 further discloses the use of Surlyn™ 1601 or 1702. The apparatus of US '382 differs from the instant invention because US '382 does not disclose the use of Surlyn™ 1705-1.

DuPont's Surlyn™ 1705-1 is similar to Surlyn™ 1702, which is also a zinc ionomer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of US '382 to use Surlyn™ 1705-1 because Surlyn™ 1705-1 is similar to Surlyn™ 1702 and would be expected to function in the same manner as Surlyn™ 1702.

11. Claims 12, 14 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382) in view of Hanoka et al. (U.S. Pat. No. 6,353,042), herein referred to as US '382 and US '042, respectively.

US '382 discloses a photovoltaic module having the limitations recited in claims 1, 2 and 7-11, as explained above in paragraph 7. The apparatus of US '382 differs from the instant invention because US '382 does not disclose the use of thin film photovoltaic cells, as recited in claim 12, and more particularly the use of cadmium telluride and CIGS cells, as recited in claims 14 and 15, respectively.

US '042 discloses an encapsulated photovoltaic module using thin film cells and either CIGS or cadmium telluride cells (col. 6, lines 19-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the photovoltaic module of US '382 to use thin film cells or cells made from CIGS or cadmium telluride, as taught by US '042, because thin film CIGS and cadmium telluride photovoltaic cells are capable of producing energy using sunlight.

12. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382) in view of Hanoka et al. (U.S. Pat. No. 6,353,042), as applied to claims 12, 14 and 15 above, and further in view of Hanoka (U.S. Pat. No. 6,320,116), herein referred to as US '382, US '042 and US '116, respectively.

US '382-US '042 disclose a photovoltaic module having the limitations recited in claims 12, 14 and 15, as explained above in paragraph 11. The apparatus of US '382-US '042 differs from the instant invention because US '382-US '042 does not disclose the use of monolithic connectors connecting the photovoltaic cells.

US '116 discloses a photovoltaic module using encapsulated photovoltaic cells, wherein the cells are connected using a monolithic connections (col. 3, lines 4-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of US '382-US '042 to use monolithic connectors as taught by US '116 because using monolithic connectors would simplify the fabrication of the photovoltaic modules.

13. Claims 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanoka (U.S. Pat. No. 5,733,382), herein referred to as US '382, in view of French (U.S. Pat. No. 4,287,382).

US '382 discloses a method for forming a photovoltaic module comprising the following steps (col. 7, lines 21-45):

- a. Placing an ionomer encapsulating sheet **44** over front glass plate **42**;
- b. Placing an array of interconnected silicon solar cells **46** on top of the sheet **44**;
- c. Placing a second ionomer encapsulating sheet **48** on the interconnected array of solar cells **46**;

- d. Placing a back support sheet **50** on the second ionomer encapsulating sheet **48**;
- e. Heating the module **40** in a heated vacuum press; and
- f. Cooling the Module to bond the adjacent components.

Regarding claim 17, US '382 discloses the use of a vacuum press laminator having a flexible wall that compresses the module (col. 10, lines 31-36).

Regarding claims 18-21, the zinc ionomer is resistant to acid chemical attack, is transparent, and has a melting point of about 95°C (physical properties of the material sold under the trade name Surlyn™ 1702). The ionomer of US '382 has UV absorbers and UV stabilizers added, which increase the resistance to photo-oxidation (col. 10, lines 13-18).

Regarding claim 22, the front support sheet **42** disclosed by US '382 is made of clear and transparent glass (col. 5, line 29). Ceria-doped glass, a more expensive alternative, is only used when UV absorption is required of the front support, which is not the case in the module of US '382 that uses UV absorbers and UV stabilizers added to the ionomer encapsulant (col. 10, lines 13-18).

The method disclosed in US '382 differs from the instant invention because US '382 does not explicitly disclose a method wherein the temperature is 120°C-130°C and the pressure is 390-400 torr and does not include a step inserting a scrim layer immediately following the layer of solar cells. US '382 provides a detailed example using a sodium ionomer, which has a higher melting point.

French discloses a method for producing a solar cell module wherein a scrim layer is inserted between the encapsulating sheets "in an attempt to provide for complete removal of air prior to the lamination of the sheets of encapsulant" so bubbles do not form in the finished product (col. 1, lines 53-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of US '382 to use a scrim sheet, as taught by French, because using a scrim sheet would "provide for complete removal of air prior to the lamination of the sheets of encapsulant" (col. 1, lines 53-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of US '382 to use a different temperature and pressure appropriate for the processing of zinc ionomer because US '382 provides for both the formation of zinc and sodium ionomers, and zinc ionomers have lower seal temperatures than sodium ionomers.

### ***Double Patenting***

14. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

15. Claims 9-11, 16 and 17 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 9-13 of copending Application No. 09/882,593. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1-8 and 18-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/882,593, herein referred to as App. '593. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-18 of App. '593 recite all of the limitations recited in the claims of the instant application.

Claim 1 of App. '593 differs from claim 1 of the instant application because App. '593 further claims that the light-transmitting ionomer is bonded to the photovoltaic cells and the front panel and back sheet. Therefore, claim 1 of App. '593 clearly anticipates

claim 1 of the instant invention. Claims 2-8 of App. '593 are identical to claims 2-8 of the instant invention.

Claims 14-18 of App. '593 are identical to claims 18-22 of the instant invention, except for the dependencies. Since claims 14-18 of App. '593 recite all of the limitations recited in the instant invention, the claims of App. '593 clearly anticipate claims 18-22 of the instant invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 12, 14 and 15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/882,593 in view of Hanoka et al. (U.S. Pat. No. 6,353,042), herein referred to as US '042.

Claims 1-8 of App. '593 clearly recite all of the limitations of claims 1-8 of the instant invention. App. '593 differs from the instant invention because App. '593 does not disclose the use of thin film cells, or more particularly, the use of CIGS cells or cadmium telluride cells.

US '042 discloses an encapsulated photovoltaic module using thin film cells and either CIGS or cadmium telluride cells (col. 6, lines 19-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the photovoltaic module of copending Application No. 09/882,593 to use thin film cells or cells made from CIGS or cadmium telluride, as



taught by US '042, because thin film CIGS and cadmium telluride photovoltaic cells are capable of producing energy using sunlight.

This is a provisional obviousness-type double patenting rejection.

19. Claim 13 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/882,593 in view of Hanoka (U.S. Pat. No. 6,320,116), herein referred to as US '116.

Claims 1-8 of App. '593 clearly recite all of the limitations of claims 1-8 of the instant invention. App. '593 differs from the instant invention because App. '593 does not disclose the use of monolithic connectors.

US '116 discloses a photovoltaic module using encapsulated photovoltaic cells including thin film cells, wherein the cells are connected using a monolithic connections (col. 1, lines 30-33; col. 3, lines 4-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of App. '593 to use monolithic connectors as taught by US '116 because using monolithic connectors would simplify the fabrication of the photovoltaic modules.

This is a provisional obviousness-type double patenting rejection.

### ***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Mutschler whose telephone number is (703)

Application/Control Number: 10/035,107  
Art Unit: 1753

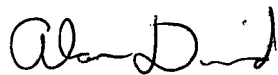
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305-0180. The examiner can normally be reached on Monday-Friday from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

blm  
April 30, 2002

  
**ALAN DIAMOND**  
**PRIMARY EXAMINER**  
Tech Center 1700